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In The Claims:

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1. (Currently Amended) A sensing device for generating orientation data when positioned or moved relative to a surface, the orientation data being indicative of an orientation of the sensing device relative to the surface, the surface having coded data disposed upon it, the coded data being indicative, when sensed by the sensing device, of the orientation, the sensing device including:

a housing containing an orientation sensor and a transmitter;

the orientation sensing means sensor configured to generate the orientation data using at least some of the coded data, the orientation data being indicative of at least one of a pitch and a roll of the housing relative to the surface; and

communications means the transmitter configured to communicate-transmit the orientation data to a computer system.

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2. (Currently Amended) A sensing device according to claim 1, wherein the orientation data is further indicative of at least one of a yaw, a pitch and a roll of the housing relative to the surface.

3. (Currently Amended) A sensing device according to claim 1, further including a motion sensing means sensor for generating movement data when the sensing device is moved relative to the surface, the communications means transmitter being configured to communicate-transmit the movement data to the computer system.

4. (Currently Amended) A sensing device according to claim 3, further including a region identity sensing means sensor configured to sense, when the sensing device is positioned or moved relative to a region of the surface, and using at least some of the coded data, region identity data indicative of an identity of the region, the communications means transmitter being configured to communicate-transmit the region identity data to the computer system.

5. (Currently Amended) A sensing device according to claim 4, wherein the motion sensing means sensor is configured to generate the movement data using at least some of the coded data.

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6. (Currently Amended) A sensing device according to claim 5, wherein the coded data is also indicative of a plurality of reference points of the region, the motion ~~sensing means~~sensor being configured to generate the movement data on the basis of the sensing device's movement relative to at least one of the reference points.

7. (Currently Amended) A sensing device according to claim 5, wherein the coded data includes periodic elements, the motion ~~sensing means~~sensor being configured to generate the movement data on the basis of the sensing device's movement relative to at least one of the periodic elements.

8. (Currently Amended) A sensing device according to claims 6 or 7, wherein the motion ~~sensing means~~sensor is configured to sample the position of the sensing device relative to the at least one reference point or periodic element, thereby to generate the movement data.

9. (Currently Amended) A sensing device according to claim 8, further including a distance ~~estimation means~~estimator configured to estimate a distance of the sensing device from the at least one reference point or periodic element.

10. (Currently Amended) A sensing device according to claim 9, wherein the ~~communications means~~transmitter is configured to ~~communicate~~transmit distance data to the computer system, the distance data being indicative of the distance.

11. (Currently Amended) A sensing device according to claim 9, wherein the motion sensing means is configured to use the distance estimated by the distance ~~estimation means~~estimator to resolve a more accurate position of the sensing device than indicated by the at least one reference point or periodic element alone.

12. (Cancelled)

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13. (Cancelled)

14. (Currently Amended) A sensing device according to claim 3, wherein the movement ~~sensing means~~sensor includes at least one acceleration ~~sensing means~~sensor, the acceleration ~~sensing means~~sensor being configured to sense acceleration of the sensing device as it is moved relative to the surface ~~region~~, the movement sensing means being configured to generate the movement data by periodically sampling the acceleration.

15. (Currently Amended) A sensing device according to claim 14, wherein the acceleration ~~sensing means~~sensor is configured to sense at least two substantially orthogonal components of acceleration.

16. (Currently Amended) A sensing device according to claim 4, further including a timer ~~means~~ configured to generate a time reference as the sensing device is moved relative to the surface region.

17. (Currently Amended) A sensing device according to claim 16, wherein the ~~communications means~~transmitter is configured to ~~communicate~~ transmit time reference data to the computer system, the time reference data being indicative of the time reference of the movement data as generated by the timer ~~means~~.

18. (Currently Amended) A sensing device according to claim 1, wherein the ~~communications means~~transmitter is a wireless ~~communications means~~transmitter.

19. (Currently Amended) A sensing device according to claim 1, further including a force ~~sensing means~~sensor configured to sense a force applied to the surface by the sensing device.

20. (Currently Amended) A sensing device according to claim 19, wherein the ~~communications means~~transmitter is configured to ~~communicate~~ transmit force data to the computer system, the force data being indicative of the force applied to the surface by the

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sensing device.

21. (Currently Amended) A sensing device according to claim 19, further including a stroke detection ~~means~~ detector configured to detect, by way of the force, when the sensing device is applied to the surface and removed from the surface, thereby to identify the duration of a stroke.

22. (Currently Amended) A sensing device according to claims 4, ~~1-5~~ or 14, further including a marking nib for marking the surface.

23. (Original) A sensing device according to claim 22, wherein the sensing device is in the form of a stylus or pen.

24. (Currently Amended) A sensing device according to claims 1, wherein the coded data is substantially invisible to the average unaided human eye.

25. (Original) A sensing device according to claim 24, wherein the coded data is printed using infrared ink, the sensing device being responsive in the infrared spectrum.

26. (Original) A sensing device according to claim 6, wherein the coded data includes a plurality of tags, each of which is indicative of an identity of a region within which the tag lies, and of a reference point of the region, the region being associated with the surface, the reference point being indicative of the position of the tag within the region.

27. (Original) A sensing device according to claim 7, wherein the coded data includes a plurality of tags, each of which is indicative of an identity of a region within which the tag lies, and each of which includes at least one periodic element of the coded data.

28. (Currently Amended) A sensing device according to claim 1, wherein the orientation sensing ~~means~~ sensor is configured to infer the orientation from perspective distortion of at least some of the coded data.

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29. (New) A sensing device for generating orientation data when positioned or moved relative to a surface, the orientation data being indicative of at least two dimensions of an orientation of the sensing device relative to the surface, the surface having coded data disposed upon it, the coded data being indicative, when sensed by the sensing device, of the orientation, the sensing device including:

a housing containing an orientation sensor and a transmitter;

the orientation sensor configured to generate the orientation data using at least some of the coded data; and

the transmitter configured to communicate the orientation data to a computer system.

30. (New) A sensing device according to claim 33 wherein the orientation data is indicative of three dimensions of the orientation of the sensing device relative to the surface.